Development (1948) **Department.**

SERIES

G.O. No. 1191

Dated 10.3.48

[Despatch Abstract.]

AGRICULTURE : FRUIT AND FRUIT PRODUCTS DEVELOPMENT : NOTES OF DISCUSSION OF THE DIRECTOR OF AGRICULTURE WITH THE FRUIT DEVELOPMENT ADVISER TO GOVERNMENT OF INDIA : PAPERS RECORDED

NOTES ON THE DISCUSSIONS AT COIMBATORE ON THE 20th June 1945 with the Fruit Development Adviser to the Government of India by the Director of Agriculture. The Fruit Specialist and the Bio-Chemist were also present.

Sardar Bahadur Lal Singh, Fruit Development Adviser to the Government of India said that the Government of India are particularly anxious to assist Provinces in the development of fruits. Particularly in respect of immediately increase in production and, to that end, they would be willing to give financial assistance to schemes designed to develop production immediately and/or in the very near future. After the position of the fruit culture and utilisation in the Madras province was discussed in all its aspects, it was agreed that the development of fruit culture has to deal with :-

(1) raising the productivity of the existing orchards
(2) planting of new areas
(3) Research and (4) Fruit Technology.

2. For improving the existing orchards, suitable methods of manuring, growing profitable interculturing crops and pest and disease control are required. To this end, a survey should be made of the existing gardens and their requirements ascertained.

3. In regard to planting of new areas, the scope and limitation of potential new areas with reference to soils and water supply are to be ascertained so that people may be supplied with information as to where, when and how to grow plants, sources of materials and an estimate of the cost of raising orchards. It is important to make adequate provision for good nursery material.

4. Fruit development is dependent on research both on orchard practices and the appropriate utilisation of fruits by preservation and processing into fruit products.

5. It is agreed that the first step for fruit development is to have a large number of trained men to improve the existing fruit gardens and to develop new areas on modern lines. The requirements of Madras would be for immediate purpose about 40 trained men, and these will be trained at the rate of 20 per annum. To that end, a diploma course in horticulture for a period of 12 months, i.e. 9 months actual training in one place, and 3 months touring about the whole of India studying orchard practices. There should be an examination and the grant of diploma in horticulture. The students selected will ordinarily be agricultural graduates and if a sufficient number of them are not forthcoming, graduates in botany may also be taken. In the case of students who are not already in Government service, they will be given a stipend of Rs.75 per month. In the case of these in Government service, they are expected to be deputed.

6. If the Central Government can make arrangements for training of these students anywhere in India, the Madras Government will be prepared to send the students there and pay 50% of stipend travelling expenses and other costs (tuition charges) of these students including that of the staff and contingencies.

7. In view of the lack of horticulturally trained men, an alternative method in so far as Madras is concerned is to immediately start a course for about 20 men per annum provided the Central Government would be willing to contribute 50 per cent of the total cost of tuition and stipend. The Government of Madras will be prepared to provide housing accommodation free of cost.

8. If the Government of India decide to send more students from other provinces for training in Madras, the additional expenses will be borne entirely by the Central or other Governments concerned - Government of Madras providing residential accommodation for which reasonable rent not exceeding Rs.5 per month per head will be charged.

9. These arrangements to continue for 3 years. On the above basis, the expenditure involved will be as under:-

At 20 men per annum by Madras.

A. Recurring Expenses		Rs.
Staff: One Lecturer Rs.500 p.m. approximately	500 x 12	6,000
Two assistants Rs.100-150(A.Rs.125)	125 x 12, x 2.	3,000
Two Fieldmen Rs. 50 p.m. each.	50 x 12 x 2	1,200
One Peon Rs. 12-17 p.m.	12 x 12	144
One Clerk Rs. 30-55 p.m.	30 x 12	360
(Note War and dearness allowance to be added to these)		
Stipends:		
Twenty students at Rs.75 p.m. each.	20 x 75 x 12.	18,000
Travelling allowance:		
i. Students. Inter class fare and daily allowance @Rs/.250 each for 20 students.	20 x 250	5,000
ii. Staff.		2,500
Contingencies: Stationery, plants, equipment, tools and implements.		2,500
		38,704

Of the above expenditure 50 per cent will be met by the Government of Indi

B. NONRECURRING EXPENSES:

Residential quarters for 40 students - lump sum - (katcha building) at Rs.4 per sq. feet.	15,000
Kitchen, bath rooms.	1,000
Teaching shed and furntirue (common to both students and fieldmen)	..
	16,000

10. Training of Fieldmen for Fruit Work: From the point of view of development work, it is less expensive if a class of fieldmen are trained to assist in the work which the Fruit Assistants have to do. The fieldmen class will be the men who may have to halt in some places longer than the assistant to show actually what and how to do. Another necessity for the class of fieldmen is in the matter of carrying fruit surveys and assisting assistants in the supervision and control of insects, nurseries, etc. The programme and provision for fruit development will not be complete without this intermediate class of men between the fruit assistant on the one side, and the garden mali on the other. Again, as horticultural development is taking place, some of the more enterprising fruit growers may be prepared to take this class of men to look after their orchards. It is, therefore, proposed that simultaneously with the training of fruit assistants training for fruit fieldmen also should be given.

11. The educational qualifications for this course will be S.S mpleted. Stipend will be at Rs.20 and the course will last for one year. The recurring cost on this account will be as under, and will be borne by the Central and Madras Governments on a 50 : 50 basis:

Training of Fruit fieldmen:

RECURRING		
Staff		
One Instructer. Rs. 150	150 x 12.	1,800
Two Fieldmen Rs.50 each.	50 x 12	1,200
One Peon Rs. 12	12 x 12	144
War and Dearness allowance (to be added)		
Stipends: 50 students Rs.20 each	50 x 20 x 12	12,000
Contingencies.		1,000
Total.		16,144

This will be borne on 50 : 50 basis.

B. NON RECURRING:

i.	Land to be leased. Lump sum per year	250
ii.	Residential quarters - Lump sum	8,000
iii.	Teaching aid and furniture.	5,000
iv.	Kitchen, bath-room.	1,000
		4,250

NOTE: *A fair amount of the above expenditure is likely to be ...ed by sale of nursery plants which will be produced by the students.

12. NURSERY PRODUCTION: There is an immense demand for the supply rsery plants to the public so much so that orders received now will not be complied with in next 3-4 years to come. There is, therfore, urgent necessity for increasing the production of plants. Realising the importanoe of this, the Madras Government who are already maintaining nurseries in several places and producing several thousand plants, are proposing to extend the nursery work to meet the increased demand. Since the nursery work is likely to be self-supporting, Government of Madras may not propose to ask for financial assistance from the Centre. In regard to the control over nurseries and the supply of horticultural seed material to the public, the Director expalined to the Fruit Development Adviser that the problem was complicated by the fact that there were al already men in the country doing business as seedsmen and nurserymen and that it was therefore important that control should be such that would not throttle small but good men and check dishonest and vocal business organisatiens. Without a survey of the existing fruit orchards for their suitability for plant propagation, it would be premature to make enactments for control over nurserymen. It was considered sufficient for the present if the Government could arrange to supply nursery plants of the major fruit trees and also supply budwood by provision for an inspecting and advising agency. The bringing into existence of a Fruit Development Board will be followed by the inauguration of a Bud Selection Committee of the Board who will look after the production and supply of genuine nursery plants. Any legislation that may be necessary can be introduced on the advice of that Committee.

13. STAFF FOR ADVISORY AND PROPAGANDA WORK: There is hardly any province in India where gardens exhibit such a great difference in regard to the income obtained from the same. There are gardens in Madras which are yielding an income of Rs. 2,000 to Rs. 5,000 and a couple of them are known to derive per acre. There are, however, numerous gardens which are not even paying the expenses on them. There are instances where people have taken over charge of neglected orchards and within the course of a couple of years, improved yield and income more than they ever did before. For this purpose, staff is needed to advise fruit growers to improve the standard of cultivation in their gardens by proper cultivatio inter-cropping, manuring, irrigation and control of insect pests and diseases. Since it is not possible to engage very large staff immediately it is proposed to concentrate work in 8 important fruit growing centres a for this purpose the following staff is required on the basis of 50 : 50 division between the Central and Madras Governmer

8 Inspectors or Demonstrators at Rs.75 each p.m.
8 Messengers at Rs.15 p.m. each.
8 Maistries - 2 for each Demons...tor @ Rs.10 p.m
Dearness Allowance
Travelling Allowance.
Contigencies for office rent, furniture, imple

The above staff will not only help the fruit growers to improve their e existing gardens but will also assist the prospective fruit growers to lay out their new gardens.

14. SURVEY: For advisory purposes, it is necessary to prepare a map of soils in different parts of the province suited for fruit growing having regard to the water facilities available, depth of soil and possibilities of well sinking as also the quality of water. Although the latte part of it can only be determined by trial boring, it will be useful if specific spots are located for carrying out trial bores only in such places where the soil is sufficiently deep in texture as to support fruit gardening and also having

wells in the neighbourhood of the area. Maps have also to be prepared indicating the possibilities of rivulets and streams or vankas whose water can be utilised for purposes of irrigating the fruit gardens par cularly in the earlier stages. For this purpose, it is better to divi the province into four regions in each of which an experienced officer in gazetted rank be placed for preparing the actual maps indicating the potentital fruit growing places. These peoplewill be assisted in the survey by two Assistants each whose business it would be to dig the soil to a depth of 6 feet and investigate the physical appearance and the distribution of different layers. These are intended to be guides in respect of development of fruits by planting new orchards. The approximate annual cost will be as under:-

4 Survey Officers at Rs. 200 p.m. each	,600
8 Assistants at Rs.75 per mensem.	,200
4 Peons at Rs.;2 per mensem each.	576
Contingencies.	,000
Travelling allowance.	,000
	,376

15. SURVEY OR ORCHARDS- ORCHADS TO LOCATE FRUIT TREES OF OUTSTANDING MERIT FOR THEIR PROPAGATION: This work is undoubtedly of very great importance but due to paucity of staff and trained men, it is considered desirable to take up the work next year after the staff proposed to be trained become available after undergoing horticultural training for one year.

6. RESEARCH ON FRUIT TREES: The Fruit Research Station at Kodaru serves the needs of the central districts and the varieties of fruits grown there and, that at Coonoor for hill fruits. From the research point of view, two more stations, one in the south round after Tinnevelly side, and another in the North, in the Vizagapatam district, are necessary for carrying out research work on the propagation, nutrition manurial requirements and physiology of fruit development and disease In short, the research work has to be carried out for advancing horticultural knowledge and practice, and each of these stations should have the complement of full research staff and equipment. Sardar Bahadur, Lal Singh, the Fruit Development Adviser, was not certain to what extent the Central Government will be agreeable to finance long range researc

FRUIT TECHNOLOGY AND FRUIT PRESERVATION: While fruit techno- fruit preservation can be carried out with the knowledge that is at present available from the results of research in Northern India and abroad, it is considered very important that special research shoul be carried out on the preservation and utilisation of fruits of the prvoince which require special treatment. To this end, a tecnological research station is necessary. A regional research station will probab be given financial assistance by the Government of India. Sardar Bahadur Lal Singh has kindly agreed to look into this and write to the Director later.

8. TRAINING OF LADIES IN FRUIT PRESERVATION: In the discussions with Sardar Bahadur Lal Singh, it was understood that the Government of India were contemplating the starting of a training class for women teachers at Delhi, in order to train 30 women teachers who, after training, are to introduce this subject in various girls' schools and e colleges to encourage fruit preservation on home scale. This is a subject which has possibilities and no province is more suited to this than Madras on account of the numerous varieties of fruits that are available in this province. Such a course can profitably be given in Madras also, as there will be adequate number of women graduates in Chemistry and Botany to study the course and take employment as teachers. It will be difficult for ladies from Madras to go to Delhi to attend such a course.

It is suggested that the Government of India may be requested to arrange a similar course in this province at a suitable place. It may be necessary for the Government of Madras to share the expenditure with Government of India on 50 : 50 basis. The Fruit Development Advi to the Government of India is agreeable to support such proposal. It desirable to restrict the admission in the first instance to 15 studen in order to get really suitable persons for the purpose. The course

as suggested by the Fruit Development Adviser will be for a period of one year.

On the basis of 15 students during the first year, the cost will be as under:

STAFF.	Bio-chemist at Rs. 350 p.m.	Rs. 4,200
	One Fieldman at Rs. 30 p.m.	360
	One Laboratory attendant at Rs.19 p.m.	228
	One Peon on Rs.12 p.m.	144
	Dearness allowance (to be added).	
	Contingencies for the purchase of raw materials, sugar, bottles, tins, fruits, glass jars, hydrometers, thermometers, pans, stoves, etc.	3,000
	Stipend at Rs.75 p.m. per student for 15 students.	13,500

Half the above expenditure is to be met by the Central Government. The Madras Government can bear the other half and to make necessary arrangements for laboratory, lecture room and hostel accommodation for students free of cost.

SD. B. VISWANATH
Director of Agriculture.

DEVELOPMENT DEPARTMENT.

In June 1945 the Director of Agriculture discussed with Sardar Baha Lal Singh, Fruit Development Adviser to the Government of India on proble relating to Fruit Development in this province along with the Fruit Specialist and Bio-Chemist. The Director of Agriculture submitted a note on the discussion to Government. The note was examined on pp 1-7 above. The following schemes were discussed in the note:-

(1) Training of Agricultural and Botany graduates and Fieldme in Horticulture,
(2) Increase in production of nursery plants.
(3) Staff for advisory and propaganda work
(4) Survey of districts of the province to prepare a map of soils suitable for fruit growing.
(5) Survey of orchards to locate fruit trees of outstanding merit for their propagation
(6) Fruit research
(7) Fruit technology and fruit preservation
(8) Training of ladies in fruit preservation.

Item (1) above: This scheme has since been sanctioned in G.O. No.4158 dated the 25th August 1947 and the training course is likely to be started in April 1948.

Item (2) above: The Director of Agriculture has recently submitted a scheme for the establishment of model orchard-cum-nurseries at five important centres in this province. The object of the scheme is to establish certain model orchards and nurseries to serve as visual demonstration and scientific orchard practices. Incidentally the model orchard-cum-nursery will prove to be the essential nucleus for the multiplication and sale of fruit plants of a high pedigree and efficient tested types that have been found suitable for various zones in the province. These model orchard-cum-nurseries are proposed to be located in the districts of East Godavari, Madura, Salem, Chittoor and Mangalore.

The Government of India have been addressed for a 50 per cent grant towards the expenditure of the scheme as a Grow More Food Scheme. After receipt of the approval of the Government of India, the scheme will be sanctioned.

Item (3) above: The D.A. submitted detailed proposals on this scheme. But it was ordered to defer the scheme till the trained staff after undergoing the diploma course in Horticulture are available. The diploma course is likely to be started in April 1948 and the first batch of trained staff will be available in April. Further action in regard to this sscheme is watched separately.

Item (4) above: The D.A. submitted a detailed scheme for the survey of the province to prepare a map of fruit growing soils. The scheme was finally dropped. It was considered that an elaborate survey as proposed by the D.A. was not likely to lead in practice immediately to the growing of fruits successfully, and therefore the scheme was dropped.

Item (5) above: In para 15 on p.11 c.f. the D.A. stated that it was considered desirable to take up the work next year after the staff proposed to be trained become available after undergoing horticultural training for one year. The course in Horticulture is likely to be started in April 1948 and the first batch of trained men will be available in 1949. This scheme may, therefore, be taken up later. For orders. A C.B. entry may be made against 1-4-1949 to pursue further action.

Item (6) above: The D.A. has submitted proposals for the establishment of three more fruit research stations in this Province. They are proposed to be located in the Districts of East Godavari, Trichinopoly and Malabar to serve the needs of Circars, Tamilnad and West Coast respectively. The proposals are separately under consideration in the C.F. above (No.9271-A-II/48)

Item (7) above: The D.A. has submitted detailed

establishment of a Fruit Technolgical Institute at Madras. These proposals ar separately under consideation in P.&.D.

Item (6) above: During 1945 to 1947 the Government have deputed five lady candidates each year to undergo traning in Fruit preservation and canning at New Delhi, a course run under the auspices of the Indian Council of Agricultural Research. Similar proposals if received in future will no doubt be considered by Government

In the circumstances explained in the above on pp 13-16 above, no further action is pending in this file. The papers may be recorded.

H.M. may like to see the notes from p. 13 n.f. ante.

V.N(arasimhan)/28.2.48
Dy.Secretary.

Items (6) and (7) have been hanging fire for such a long time. Hurry it up please.

K.M(adhava) M(enon);3.3.1948
H.M.(Agri).

Item (7) above.

Discuss the case

The file has been sent to Fin. Deptt. on 2-3-1948 for remarks. That Deptt. may be requested to treat the file as special. A n.o. note is submitted for approval. After despatch of the n.o. note, the pappers may be recorded.

G.O. (Ms) No. 1191 Dev. dated the 10th March 1948.

Abstract.

Agriculture - Fruit and fruit products development - Notes of discussion of the Director of Agriculture with the Fruit Development Adviser to

Office Assistant,
Record Office, Egmore.